ORIGINAL

DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AIR FORCE CIVIL ENGINEER SUPPORT A

RECEIVED

2011 NOV 18 P 2:11

AZ CORP COMMISSION
DOCKET CONTROL

17 November 2011

Karen S. White
Staff Attorney
Air Force Utility Law Field Support Center
139 Barnes Drive Ste 1
Tyndall AFB FL 32403

Arizona Corporation Commission
DOCKETED

NOV 18 2011

DOCKETED BY

Docket Control Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Re: Docket No. E-01345A-11-0224

Dear Sir/Ma'am

Enclosed please find an original and thirteen copies of the Testimony of Dr Larry Blank on behalf of Federal Executive Agencies, for filing in the above-captioned case.

Thank you for your assistance in this matter.

Sincerely,

Karen S White

KAREN S. WHITE
Staff Attorney
Air Force Utility Law Field Support Center

Attach:
Testimony of Dr Larry Blank
+ 13 copies

SERVICE LIST
DOCKET NO. E-01345A-11-0224

A copy of the foregoing was
mailed/*emailed this
17th day of November 2011 to:

Lyn Farmer, Chief Administrative
Law Judge*
Hearing Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Meghan H. Grabel
Thomas L. Mumaw*
PINNACLE WEST CAPITAL
CORPORATION
P.O. Box 53999 ms 8695
Phoenix, AZ 85072-3999

Daniel Pozefsky, Chief Counsel*
RUCO
1110 W. Washington, Ste 220
Phoenix, AZ 85007

Timothy Hogan*
ARIZONA CENTER FOR LAW IN
THE PUBLIC INTEREST
202 E. McDowell Road
Ste 153
Phoenix, AZ 85004
Attorney for Western Resource
Advocates and Southwest Energy
Efficiency Project

David Berry
WESTERN RESOURCE
ADVOCATES
PO Box 1064
Scottsdale, AZ 85252-1064

Michael M. Grant*
GALLAGHER & KENNEDY, P.A.
2575 East Camelback Road
Phoenix, AZ 85016-9225
Attorneys for Arizona Investment
Council

Gary Yaquinto*
ARIZONA INVESTMENT COUNCIL
2100 North Central Ave Ste 210
Phoenix, AZ
85004

Kurt J. Boehm*
BOEHM, KURTZ & LOWRY
36 East Seventh Street, Ste 1510
Cinncinati, OH 45202
Attorneys for The Kroger Co.

C. Webb Crockett*
Patrick J. Black*
FENNEMORE CRAIG
3003 North Central Avenue, Ste 2600
Phoenix, AZ 85012-2913
Attorneys for Freeport-McMoRan
and AECC

Cynthia Zwick*
1940 E. Luke Ave
Phoenix, AZ 85016

Barbara Wyllie-Pecora
14410 W. Gunsight Dr.
Sun City West, AZ 85375

Michael A. Curtis*
William P. Sullivan*
Melissa A. Parham
CURTIS, GOODWIN, SULLIVAN,
UDALL & SCHWABB, P.L.C.
501 East Thomas Road
Phoenix, AZ 85012-3205
Attorneys for the Town of Wickenburg
and Town of Gilbert

Jeffrey W. Crockett
BROWNSTEIN, HYATT, FARBER
SCHRECK, LLP
40 N. Central Ave., 14th Floor
Phoenix, AZ 85004
Attorney for Arizona Association of
Realtors

John William Moore, Jr.
7321 N. 16th Street
Phoenix, AZ 85020

Michael W. Patten
ROSHKA DEWULF & PATTEN PLC
One Arizona Center
400 E. Van Buren, Suite 800
Phoenix, AZ 85004
Attorney for Tucson Electric Power Co.

Bradley Carroll
TUCSON ELECTRIC POWER CO.
One South Church Ave., Suite UE201
Tucson, AZ 85701

Janice Alward, Chief Counsel
Legal Division*
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, AZ 85007-2927

Steve Olea, Director
Utilities Division*
ARIZONA CORPORATION COMMISSION
1200 West Washington
Phoenix, AZ 85007-2927

ARIZONA REPORTING SERVICE INC.
2200 N. Central Ave., suite 502
Phoenix, AZ 85004

Jeff Schlegel
SWEEP Arizona Representative
1167 W. Samalayuca Drive
Tucson, AZ 85704-3224

Stephen J. Baron
Consultant for The Kroger Co.
J. Kennedy & Associates
570 Colonial Park Drive, Suite 305
Roswell, GA 30075

Greg Patterson
Attorney for Arizona Competitive Power Alliance
Munger Chadwick
2398 E. Camelback Rd. Suite 240
Phoenix, AZ 85016

Nicholas J. Enoch
Attorney For IBEW 387, 640,769
Lubin & Enoch, P.C.
349 North Fourth Ave.
Phoenix, AZ 85003

By: Karen S White
KAREN S. WHITE, Esq.

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS:
Gary Pierce, Chairman
Bob Stump
Sandra D. Kennedy
Paul Newman
Brenda Burns

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTLITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN.	)	DOCKET NO. E-01345A-11-0224

PREFILED TESTIMONY

OF

LARRY BLANK

ON BEHALF OF

THE FEDERAL EXECUTIVE AGENCIES

NOVEMBER 18, 2011

I. IDENTIFICATION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Larry Blank. My business address is Tahoeconomics, LLC, 2533 North Carson St., Suite 3624, Carson City, NV 89706. My email address is LB@tahoeconomics.com.

Q. WHERE ARE YOU EMPLOYED?

A. I am currently an Associate Professor of Economics and the Associate Director with the Center for Public Utilities in the College of Business at New Mexico State University ("NMSU"). For the purposes of this proceeding, I am engaged through *TAHOEconomics*, LLC, ("Tahoe"), a Nevada-registered consulting firm I founded in 1999, and for which I serve as principal. Tahoe specializes in most policy and ratemaking facets of regulated utility industries. The expert opinions expressed herein are my own and nothing in this testimony necessarily reflects the opinions of NMSU.

Q. PLEASE PROVIDE A BRIEF SUMMARY OF YOUR BACKGROUND AS IT IS RELEVANT TO THIS TESTIMONY.

A. I have served the public in various capacities for over twenty-five (25) years. I received a Ph.D. in Economics from The University of Tennessee in 1994, specializing in Industrial Organization & Public Policy (including regulatory policy), Econometrics, and Finance. I previously served as an Economist with the National Regulatory Research Institute ("NRRI") at the Ohio State University and later as the Manager of Regulatory Policy & Market Analysis at the Nevada Public Utilities Commission. My division's responsibilities at the Nevada commission included participation in several rulemaking

workshops, hearings and rates analysis for all regulated utilities in that jurisdiction as well as expert witness testimony on the same. As a consultant, I have served a variety of clients including regulatory agencies, utility customers, utility companies, and the U.S. Department of Energy as the Project Director for technical assistance to the Energy Regulatory Commission in the Philippines. I have served as an expert witness and/or advisor in over 150 rate cases and rulemakings of various types and filed written testimony in the following utility regulatory commission jurisdictions: Arizona, Alaska, Arkansas, Colorado, Montana, Nevada, New Mexico, Texas, and the Federal Energy Regulatory Commission. I also teach advanced graduate utility regulation at NMSU, and I help deliver nationally-recognized rate-case training programs offered by the Center for Public Utilities at NMSU, which are attended by regulatory professionals from across the United States and are endorsed by the National Association of Regulatory Utility Commissioners ("NARUC").

II. PURPOSE AND SUMMARY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am testifying on behalf of the Federal Executive Agencies ("FEA") in response to two proposals in the revenue requirements phase of the Arizona Public Service Company ("APS" or the "Company") application to adjust retail service rates. These proposals are found in the APS testimonies of Mr. Leland Snook and Mr. Zachary Fryer.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. First, the decoupling mechanism proposed by APS, the Efficiency and Infrastructure Account ("EIA") Mechanism, should be rejected because: (1) its proposed design would result in over-correction for fixed cost recovery due to changes in kWh sales; (2) it fails to remove the large amount of fixed costs recovered through the fixed monthly basic charges and the demand charges; and, (3) it does not account for the significant differences in rate design across rate classes as well as the differences in level of energy efficiency programs across rate classes. As a result, the EIA will shift fixed cost recovery between rate classes. This shifting of fixed cost recovery between rate classes is unjust and unreasonable.

Second, the Company's proposal to move $44,911,000 out of the Renewable Energy Standard Surcharge ("RES Surcharge") into the base rates should be rejected. First, this proposal will greatly reduce the transparency on how much customers are paying for the utility to have renewable energy on the system and for the cost of the special policy mandates required by the Renewable Energy Standard ("RES"). Second, there is precedence in Arizona for monthly per customer RES Surcharge Limits (or "Caps") and those monthly limits would now be partially eliminated under the APS proposal to move almost half the annual renewable energy costs into the base rates. The levels of these Surcharge Caps have already been decided and should continue to be litigated as part of the Company's annual application for approval of its renewable energy standard and tariff implementation plans. Third, when it comes to the Federal Department of Defense ("DoD") customers (e.g., Luke Air Force Base), these customers are required to obtain 25% of their total electricity usage from renewable resources by

2025 (10 U.S.C.§ 2911) and these customers cannot take advantage of the Arizona RES mandates on APS in meeting the 25% Federal requirement.

III. APS'S PROPOSED EFFICIENCY AND INFRASTRUCTURE ACCOUNT (EIA) MECHANISM

Q. IN GENERAL, WHAT IS THE EIA MECHANISM?

A. APS's proposed Efficiency and Infrastructure Account ("EIA") Mechanism is a revenue-per-customer decoupling mechanism that attempts to mitigate utility financial disincentives to develop utility-sponsored energy efficiency programs. In general, revenue decoupling mechanisms break the linkage (i.e., "decouples") revenues from kilowatt-hour (kWh) sales.

Q. WHAT IS THE SOURCE OF THE FINANCIAL DISINCENTIVES?

A. The objective of energy efficiency ("EE") programs is to reduce kWh sales. In between rate cases, when base rates are fixed, reductions in kWh sales may adversely impact recovery of fixed costs, which in turn will adversely impact investment returns. This adverse effect of reduced kWh sales occurs because, typically, utility rate structures place a large dependence on the energy charge ($/kWh) for fixed-cost recovery. For illustrative purposes only, suppose the energy charge is $0.0962 per kWh and that $0.0337 of this charge recovers variable (energy-related) costs while $0.0625 recovers fixed costs. For every kWh reduction in sales from adjusted test-year levels due to EE programs, the utility loses $0.0962 in revenue but costs only decrease by $0.0337. Fixed costs do not vary with kWh sales, so in this stylized example, the utility loses $0.0625 in fixed-cost recovery from the single kWh reduction in sales.

Q. WHAT ARE FIXED COST?

A. Fixed costs are those costs that do not vary with the amount of kWh produced and sold while variable ("energy-related") costs are those costs that do vary with kWh. Examples of fixed costs in revenue requirements are annual depreciation expense on plant in service ("return of investment"), certain taxes, most operations and maintenance expenses, administration and general expenses and return dollars on investment for interest payments and a fair profit (determined from last rate case). The best examples of variable costs are fuel expenses for generation and some variable generation operations and maintenance such as lubricants and pollution abatement scrubbing agents.

Q. YOU SAID THAT THE SOURCE OF THE FINANCIAL DISINCENTIVE IS A DEPENDENCE ON THE ENERGY CHARGE FOR FIXED-COST RECOVERY. IS THE ENERGY CHARGE THE ONLY RATE ELEMENT USED TO RECOVER FIXED COSTS?

A. No. The basic service charge (i.e., the "fixed customer charge") yields a fixed stream of revenue per customer, which contributes to the recovery of fixed costs. Also, revenue collected from demand charges ($/kW of monthly billing demand) contribute to the recovery of fixed costs. Because customers' monthly billing demands are not completely fixed from month to month, revenue collected per customer from demand charges – unlike revenue collected per customer from customer charges – is not completely fixed. However, revenue collected from demand charges is significantly less variable than revenue collected from energy charges. According to APS witness Leland Snook:

> "Under traditional ratemaking, the vast majority of [fixed] costs is collected through usage-based (or "volumetric") rates [i.e., energy charges]. In the 2010

Test Year, for residential customers APS collected approximately 27% of its fixed costs through a fixed charge (the basic service charge and kilowatt (kW) demand charges), while the remaining 73% was collected through kilowatt-hour ("kWh") rates. For commercial customers the percentages were 34% through fixed charges (basic service and kW charges) and 66% through kWh charges. Basic service charges alone were only approximately 16% for both residential and commercial customers." (Snook Direct Testimony, p. 3, lines 10 – 19)

Q. IS APS'S DEPENDENCE ON THE ENERGY CHARGE FOR FIXED COST RECOVERY UNUSUAL?

A. Not in my experience. Consumer advocates for residential and small commercial customers tend to dislike large fixed customer charges because it causes the bills of below-average usage customers to increase and, typically, these customers do not have demand meters so that a kW demand charge cannot be implemented. Therefore, the energy charge must pick up most of the load in terms of fixed-cost recovery causing the fixed costs paid by customers to closely track kWh usage.

Q. COULD YOU ELABORATE A LITTLE MORE ON HOW APS'S PROPOSED EIA MECHANISM WORKS?

A. From the test-year data, APS calculates the allowed total fixed cost per customer (for each rate class). These allowed total fixed costs are also expressed on a per kWh (for each rate class) from the adjusted test-year annual kWh values. For some future year, the allowed total fixed costs are calculated by multiplying that future year's actual number of customers by the test-year allowed fixed cost per customer. The actual fixed costs value for some future year are calculated by multiplying that future year's actual kWh sales by

the test-year allowed fixed costs per kWh. After these calculations are summed over all rate classes, the difference between the future year's aggregate allowed fixed costs and the future year's aggregate actual fixed costs is that year's "EIA dollar adjustment." This total dollar adjustment is divided by the year's actual revenues to obtain an "EIA percent adjustment." The percent adjustment is then applied across the board to all customers in all rate classes.

Q. IN YOUR OPINION, ARE THERE ANY FLAWS IN PROPOSED EIA MECHANISM?

A. Yes. The proposed EIA mechanism over-corrects for the lost recovery to fixed costs because it does not properly account for the recovery of fixed costs-through rate elements other than the energy charge. In order to see this, consider the hypothetical illustrative example found in Table 1, where sales in some future year have decreased by 10% from the test-year level. For simplicity, I have assumed that the future year has the same number of customers as in the test year from the last rate case; therefore, the fixed costs per customer are the same and the "allowed fixed costs" in the EIA mechanism is the same for both years – equal to $75,000,000 in Line [3] of Table 1. Also for simplicity, I assume there is only one rate class, which only has two rate elements determined from the last rate case: an energy charge and a fixed monthly customer charge. Under the APS method, the actual fixed costs for the future year is calculated in the following two steps: (1) divide the allowed fixed costs from the last rate case ($75,000,000) by the test-year kWh from the last rate case (900,000,000); and then, (2) multiply the resulting test-year allowed fixed costs per kWh ($0.0833) by the future year's actual kWh (810,000,000), which yields the "actual fixed costs" for the future year ($67,500,000 from Line [8] in the

table). Finally, the difference between the allowed fixed costs ($75,000,000) and the actual fixed costs ($67,500,000) illustrates the APS-EIA method's determination of the future year's lost recovery of fixed costs (i.e., the "EIA dollar adjustment") shown from Line [11] in the table as $7,500,000.

Table 1: APS Method vs. Corrected Method (hypothetical example)

Line	Item	From Last Rate Case	Future Year
[1]	Actual kWh	900,000,000	810,000,000
[2]	Actual Customers	75,000	75,000
[3]	Allowed Total Fixed Costs (TFC)	$75,000,000	$75,000,000
[4]	TFC Recovered by Fixed Customer Charge	$18,750,000	$18,750,000
[5]	TFC Recovered by Energy Charge	$56,250,000	
[6]	TFC per kWh (test-year from last rate case: [3]/[1])	$0.0833	$0.0833
[7]	TFC Recovered by Energy Charge per kWh (test-year from last rate case: [5]/[1])	$0.0625	$0.0625
[8]	Actual TFC Recovery-APS Method ($0.0833*[1])	$75,000,000	$67,500,000
[9]	Actual TFC Recovery by the Energy Charge ($0.0625*[1])		$50,625,000
[10]	Actual TFC Recovery-Corrected Method ([4] + [9])		$69,375,000
[11]	Lost Recovery of Fixed Cost-APS Method ([3] - [8])		$7,500,000
[12]	Lost Recovery of Fixed Cost-Corrected Method ([3] - [10])		$5,625,000

The APS-EIA method, however, overestimates the lost recovery of fixed costs. The illustrative example in Table 1 shows that of the $75,000,000 in allowed annual fixed costs, $18,750,000 is recovered from the fixed monthly customer charge (determined in the last rate case) and $0.0625 per kWh is recovered from the energy charge (also determined from the last rate case). For example, if the energy charge was determined to

be, say, $0.0962 per kWh – and if average variable (energy) costs are $0.0337 per kWh – then $0.0625 per kWh ($0.0962 – $0.0337) of the energy charge is used for recovering fixed costs. For every kWh reduction in sales (from adjusted test-year levels) the utility loses $0.0962 in revenue but costs only decreases by $0.0337. Fixed costs do not vary with kWh sales, so in this stylized example, the utility loses $0.0625 in fixed-cost recovery from the single kWh reduction in sales. Put another way, and as illustrated in Table 1, if the future year's actual annual kWh decreases to 810,000,000 kWh, actual fixed cost recovery is equal to ($0.0625)*(810,000,000) = $50,625,000 from the energy charge (Line [9]) PLUS the $18,750,000 from the fixed monthly customer charge (Line [4]). Therefore, in total, the future year's actual fixed cost recovery is $69,375,000 from Line [10] in Table 1. As a result, the "Corrected Method" yields lost fixed cost recovery of $5,626,000 from Line [12] (as compared to the APS-EIA Method of $7,500,000 from Line [11]).

Q. WILL THE OVER-CORRECTION FOR FIXED COST RECOVERY BE EVEN MORE PRONOUNCED FOR THOSE RATE CLASSES THAT HAVE DEMAND CHARGES?

A. Yes. Because the lost contribution to fixed costs in the APS-proposed decoupling mechanism includes all fixed costs and not just the amounts recovered through the energy charges, the level of lost contribution to fixed costs in the calculation includes both the customer charge-related costs and the demand charge-related costs. Therefore, the over-correction caused by its design will be even more pronounced for those customer classes with demand charges, which recovers a portion of fixed costs.

Q. DO YOU HAVE ANY OTHER CONCERNS WITH THE APS-EIA MECHANISM?

A. Yes. My additional concern with the EIA mechanism centers on the fact that the EIA adjustment is a flat across-the-board percent adjustment to all customers in all rate classes. As pointed out in Company witness Leland Snook's direct testimony (pp. 17 – 18) large customers, particularly those served under rate schedules E-34 and E-35, have significantly less of the allocated fixed cost recovered through the energy charge. Therefore, to include these large customers in a group with customers that have an extremely large share of the fixed costs recovered from the energy charge would – given that the EIA percent adjustment is an across-the-board flat adjustment for all rate classes – lead to these large customers paying for more than their allocated share of fixed costs from the last rate case. This shifting of fixed cost recovery across rate classes is unjust and unreasonable and will lead to discriminatory rates. If the Commission decides that the EIA adjustment is appropriate for residential customers, one alternative is to remove these large customers from the pool of rate classes to which the EIA adjustment applies. Company witness Leland Snook actually suggests this alternative in his direct testimony. (pp. 17 – 18).

Q. WHAT ARE YOUR RECOMMENDATIONS ON THE APS REVENUE DECOUPLING PROPOSAL?

A. First, I recommend that the Commission reject the decoupling mechanism proposed by APS. Second, revenue decoupling should be done by rate class for all the reasons stated above. Third, the target fixed cost recovery should be limited to only those fixed costs

included in the energy charge calculation during the general rate case. Again, as pointed out in Company witness Leland Snook's direct testimony (pp. 17 – 18), an alternative is to remove the large customers from the pool of rate classes to which the EIA adjustment applies.

IV. RENEWABLE ENERGY COSTS AND SURCHARGE

Q. HAS APS PROPOSED TO MOVE RENEWABLE ENERGY COSTS AWAY FROM THE SURCHARGE AND INTO THE BASE RATES?

A. Yes. As stated by APS witness Mr. Fryer, the Company is proposing to move $44,911,000 out of the Renewable Energy Standard Surcharge ("RES Surcharge") into the base rates [Fryer Direct at p. 2, lines 26-27].

Q. DO YOU HAVE ANY CONCERNS WITH THIS PROPOSAL?

A. Yes. First, this will greatly reduce the transparency on how much customers are paying for the utility to have renewable energy on the system and the cost of the special policy mandates required by the Renewable Energy Standard ("RES"). Second, there is precedence in Arizona for monthly per customer RES Surcharge Limits (or "Caps") and those monthly limits would now be partially eliminated under the APS proposal to move almost half the annual renewable energy costs into the base rates. The levels of these Surcharge Caps have already been decided and should continue to be reviewed as part of the Company's annual application for approval of its renewable energy standard and tariff implementation plans (see e.g., Decision No. 72022). The Company's proposal on this matter would effectively negate past Commission decisions and precedence insofar as the per customer Surcharge Limits are concerned. Third, when it comes to the Federal

Department of Defense customers (e.g., Luke Air Force Base), these customers are required to obtain 25% of their total electricity usage from renewable resources by 2025. (10 U.S.C.§ 2911) Military customers do not include renewable energy that is part of the APS generation fleet to meet the 25% DoD requirement. Instead, the DoD must develop additional renewable energy sources to meet this requirement. Therefore, the RES Surcharge Limit or Cap per customer service line helps protect these Federal customers from paying more than a reasonable level in addition to its own mandates to procure renewable energy above and beyond those of APS.

Q. WHAT IS YOUR RECOMMENDATION ON THE APS PROPOSAL TO MOVE $44.9 MILLION OUT OF THE RES SURCHARGE AND INTO BASE RATES?

A. Based on the concerns I express above, I recommend that the Commission reject this proposal and retain these annual costs in the RES Surcharge. The levels of these Surcharge Caps have already been decided and should continue to be litigated as part of the Company's annual application for approval of its renewable energy standard and tariff implementation plans (see e.g., Decision No. 72022).

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.